

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for printing, said system comprising:

~~an~~ a first optical sensor that is moveable relative to a print medium;
a printhead that is coupled to and moves in tandem with said first optical sensor;

a second optical sensor that is coupled to and moves in tandem with both said first optical sensor and said printhead; and

a print medium feed mechanism comprising a roller, wherein said first optical sensor senses information on said roller and said second optical sensor concurrently senses information on said print medium;

wherein said roller has located thereon a plurality of marks, said marks occurring along the circumference of said roller and also along the length of said roller and visible to said first optical sensor within the range of movement of said first optical sensor as said print medium is fed through said feed mechanism past said roller, said marks separated by known distances measured in a first direction along said circumference and known distances measured in a second direction along said length, wherein said known distances measured in said first direction and in said second direction are used to determine a position of said printhead ~~optical sensor~~ relative to said print medium.

2. (Canceled).

3. (Currently Amended) The system of Claim 1 wherein said marks along said length of said roller are visible to said first optical sensor during transport of said print medium, wherein said print medium is opaque.

4-6. (Canceled).

7. (Previously Presented) The system of Claim 1 wherein said feed mechanism comprises a second roller.

8-9. (Canceled).

10. (Currently Amended) The system of Claim 1 wherein said position is used for determining a rotational mounting error associated with said printhead and said first optical sensor.

11. (Currently Amended) The system of Claim 1 wherein said position of said first optical sensor is used to establish a position of said printhead.

12. (Previously Presented) A method of correcting a position of a printhead in a system for printing, said method comprising:

establishing an initial position of said printhead;

estimating a second position of said printhead based on information sensed as said printhead moves relative to a print medium, wherein said system comprises a feed mechanism for transporting said print medium, said feed mechanism comprising a roller; and

using a first marker in a known location on said roller to determine an error associated with said second position.

13. (Original) The method of Claim 12 further comprising:

estimating a third position of said printhead based on information sensed as said printhead moves relative to said print medium; and

using said error associated with said second position to correct said third position.

14. (Original) The method of Claim 12 wherein said initial position is established using said first marker.

15. (Previously Presented) The method of Claim 12 wherein said initial position is determined using an edge of said print medium.

16. (Original) The method of Claim 12 wherein said initial position is established using a second marker.

17. (Original) The method of Claim 12 wherein said printhead moves in combination with an optical sensor, said optical sensor adapted to detect said first marker.

18. (Canceled).

19. (Previously Presented) The method of Claim 12 wherein said feed mechanism further comprises a second roller, wherein said first marker is located on one of said rollers.

20. (Original) A method of detecting rotational mounting error between an optical sensor and a printhead in a system for printing, said method comprising:

receiving a signal that identifies a direction of relative motion between said optical sensor and printhead moving in combination and a print medium;

estimating a position of said optical sensor and printhead using information sensed from said print medium; and

identifying any difference between a position of said optical sensor and printhead based on said direction of relative motion and said position of said optical sensor and printhead estimated using said information sensed from said print medium, said any difference indicating presence of a rotational mounting error.

21. (Original) The method of Claim 20 wherein said print medium moves in a first direction along a first axis and said optical sensor and printhead move in a second direction along a second axis orthogonal to said first axis, wherein said signal is for identifying whether said direction of relative motion is in said first direction or in said second direction.

22. (Original) The method of Claim 20 further comprising: correcting for said rotational mounting error if said any difference is identified.

23. (Original) The method of Claim 20 further comprising: using a feature having a known location to establish an initial position of said optical sensor and printhead.

24. (Original) The method of Claim 20 further comprising: using a feature having a known location to determine an error associated with said position of said optical sensor and printhead estimated using said information sensed from said print medium.